## 432 MHz MHz AND ABOVE EME NEWS

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14.345 KHz at 1600 Z SAT/SUN

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## CONDITIONS

Nov produced another good one. Contest reports were again very positive with regard to conditions. Criticism if any was aimed at the format of the contest. I shall be discussing ways we can make the contest(s) more exciting in future NLs. This month's NL is devoted to the many contest reports we have received. There is an important discussion on possible dates for the next ARRL EME Contest at the end of this NL.

## HIGH CONTEST SCORES

'97 has produced some surprises. On 432 it appears that OH2PO 147x43 has the high score followed by DL9KR 137x42, N2IQU 132x37, OE5JFL 120x39, K1FO 121x37, UR5LX 116x39, OZ4MM 112x36, DL9NDD 108x36 and in Japan JA5OVU 90x33. On 1296 OE9XXI 72x36 still remains the leader, but was very nearly surpassed by K2DH 71x36 followed by K5JL 65x34, OE5JFL 64x31, OZ4MM 64x31, W2UHI 62x35 and ZS6AXT 58x27. KB2AH was put out of the running by a bad back which kept him in bed and did not allow any operation during Nov.

## 4X6UJ

Howie is back on 23 cm EME in a big way after repairing storm damage -- Now we really know how 23cm EME operation should feel. During the 1st phase of the contest we used the same setup as last year: a 3 m TVRO dish and 175 w. The improvement noticed on my signal was due to a much lower loss feedline (1.5 dB). During the test we had an horrible storm - the dish became unusable. I started a big campaign to find a better dish for the next phase of the test. This is not an easy task in Israel where professional dishes are rare). I managed to find a 5.1 m solid dish used for uplinking at Gilat in Jerusalem. After much bargaining (hi). I bought it for a reasonable amount (6,000 USD) together with the original pedestal from Scientific Atlanta. It all weights around 750 kg. The time of the contest being very close, I made giant efforts to bring it to Haifa and erect it on the roof. Two hours after the contest was on, I came down from the roof, and almost fell over in surprise... The band sounded like 20 m. A push on the key gave me the 1st EME echo in my life (8-12 dB over the noise). The power is still 175 w from a solid state power amp (SSPA). (I am building 350 w SSPA.) The LNA is very good (0.27 dB NF). We made 40 QSOs and missed 7. A lot of big guns were missing during this phase. (Where was Tom? [In bed with a bad back.]) We also made 2 SSB QSOs with OE9ERC and DL0SHF. I can hear my

echoes even on SSB. Talk about excitement around here... Ralph, 4X1IF is also excited by the results. We are contemplating getting on 70 cm and of course the upper bands. The team here was myself and 2nd op Chris, 4Z5JA.

#### **7M2PDT**

Shukou reports on his contest results -- I was not active in the 1st part due to the JA 430SSB GW MEETING and a high SWR problem. I worked only 7 staions in the 1st part. I replaced the Blower of HPA to a bigger one. This caused the air flow to increase, and I increased drive power to bring the output power from 1.3 kw to 1.5 kw. Everything was fine on 15 Nov, but not on the 16th because it was rainy and the SWR increased. My score was 45x24 with initials JH1EFA, KL7HFQ, DL4KG, F1CH, UA6LGH, EA8FF, ON5OF and W0KJY to bring me to #97. I hope to make #100 before the end of '97.

#### AA5C

Greg did not make it on in Nov -- I was unexpectedly out of town for the 2nd half of the contest. I did complete a 10 GHz EME schedule with SM4DHN earlier in the month for initial #14. Easy copy with (O/O) reports. Lars-Bertil has fixed his elevation drive and put a new preamp on the system with very good Sun and Moon noise. He runs CP. I am always looking for skeds with stations I haven't yet worked on 10 GHz. I am also looking for leads on 432 cavity designs using the 7213 tube.

#### DD1XF

Frank writes -- I worked the following initials on 23 cm in Nov: JL1ZCG, 4X6UJ and OK1DFC - if he is an initial?. [OK1DFC was using the same site as OK1CA. So if you have not worked OK1CA on 23 cm, he would count as an initial.] Conditions were was good, but with lots of QSB. I am working on 6 cm EME and am concerned about my feed. I have finished a 6 cm feed for vertical pol. Now I read that some stations are using circular. We must have a decision for one standard. I hope to be QRV on 6 cm by the end of the year with vertical pol. I am also making slow progress on 13 cm.

#### DF0OVH

Joe, DJ7FJ reports -- This is the club call of the radio club of Haslach, a small town in the Black Forest. The club celebrated its 35th anniversary on 20 and 21 of Sept. As a special event some 10 GHz EME QSOs were arranged. Due to the "uncomfortable" availability of the moon - there was only a short window in the morning before the moon set - skeds were arranged with WB5LUA and WA7CJO to give the spectators a chance to here strong signals. Both were worked with good sigs and Jim even was even copied in SSB. Prior to these QSOs, tests were made with RW3BP, but failed. The equipment consisted of a temporarily mounted 3.3 m dish and a 50 w TWTA. The dish and TWTA was loaned from by myself. DL1GNM, Mike was the main operator.

#### DJ7FJ

Joe was active on 3 cm on 19 Oct, the 1st night of the 1st part of the ARRL Contest on 19th Oct. There was an arranged a sked with Sergej, RW3BP, which ended with (M/O) reports for initial #30. Sergej was copied with a relatively good signal. He had some QSB. Later that night Jim, WA7CJO was directly called and worked in SSB (56/56), followed by Greg, AA5C (539/539). Our station still consists of a 4.5 m dish, but now driven electro- mechanically instead of by muscle-power, and a new 200 w amp! The new TWTA had to withstand the foggy night - which it did after some high voltage buzz and bangs. Due to work there was no possibility to be QRV during the 2nd contest leg. DJ7FJ is an independent call. I have nothing to do with DL0SHF, DK7LJ and others.

## **DJ9YW**

Heinrich sends his 23 cm Nov contest QSOs -- I worked on 15 Nov S59DCD, OH2AXH, JLIZCG and OKIDFC, and on 16 Nov 4X6UJ for initial #76 and possibly 1st 4X - DL 1296 QSO, K2UYH, G3LTF, W40P, NU7Z #77, OZ4MM, LA8LF, HB9SV, F1ANH, SM4DHN, JH5LUZ, SM2CEW and OE9ERC. The rig is now a 4.5 m dish, f/d 0.47, with 360 w at an IMU circular long feed horn, and overall RX NF is .48 dB. For skeds send FAXs to my new Fax # ++49-5155-983256. I need QSLs from SM2CEW, SM6CKU, SM5DGX, I6QGA, 15MPK, DJ7F, K5JL, VE3BQN and S59DCD.

#### DK3FB

Ruediger end up with a score of 33x20. He worked 5 initials with all QSOs on random. Additionally, Ruediger heard JA9BOH, JJ1NNJ, EA8FF, CT1DMK,

S52CW, DL4MEA, F5FEN, K5JL, W7FN, KN6(5)M, KA0RYT, N9AB, G3FUF, G3LTF and G3SEK. Ruediger is now up to initial #96. He has no e-Mail, but sked requests can be forwarded to Stephan, DL3EAG at e-mail: Ruediger, DK3FB

### **DL3EAG**

Stephan was active in the contest -- He worked on 15 Nov N4GJV (439/439), SM2CEW (429/439) for an initial (#), W7FN (439/439) #, OH2PO (559/O), HA1YA (439/439) #, DL9NDD (O/O) and I2COR (O/O), and on 16 Nov G3LTF (O/O). I ended with 19x17. I found conditions not as good as on the 1st leg of the contest, but quite OK. Heard were also 7M2PDT, JL1ZCG, N9AB, K5GW, K0RZ, ON4KNG, ON5OF and F5FEN. I used an improved preamp with 0.5 dB NF, abt 1 kw. I had some problems with a coaxial switch, but this will be solved soon. I have a new e-mail address:

**Stephan**, **DL3AEG** Skeds requests are welcome.

#### DL4KG

Gerald's report for Nov -- I worked on 432 on 08 Nov SM2CEW (O/O), on 15 Nov N2IQU (O/O), OH2PO (O/O), DL9KR (559/549), N4GJV (O/O), DF3RU (O/O), KA0RYT (O/O) for an initial (#), W7FN (449/449) #, SM2CEW (549/549), DL9NDD (539/529), SM3AKW (O/O), ON5OF (529/519) #, JA9BOH (O/O), 7M2PDT (O/O) # and JA5OVU (439/449), and on 16 Nov OZ4MM (539/529), S52CW (O/O) #, WD5AGO (O/O) #, VE1ALQ (439/439) #, UT5EC (O/O) # and G3SEK (O/O) #. The ARRL contest brought me 12 initials and a lot of fun. Final contest results were 31x19. Standings are now #42 initials, 17 DXCC and 9 US states. I heard my echoes for most of the time which has not happened very often before. Maybe that I got a little bit more experienced now. Most pleasant was the high number of station who answered my CQ. I never expected it. Heard but not worked were I2COR, JL1ZCG, K0RZ, HA1YA and all others which I worked in the 1st part. My rig was TS-850 + transverter (NF 0.5 dB), 700 W at feed and 4 x 23 el DJ9BV (6 lambda) yagis. Sked proposals are very welcome via PR DL4KG@DB0MKA.#NRW.DEU.EU or my e-mail: Gerald, DL4KG

#### DL4XX

Andreas is back on 70 cm moonbounce -- The station is the same as described in

DL4EBY's list. I can hear my own echoes very often (2 kw) and sometimes with only 400 w. My e-mail address is:

Andreas, DL4XX

#### **DL6WU**

Guenter had problems -- I made only one 70 cm contact in Nov with EA8FF for initial #194, and then my T/R relay in my FT 726R failed. A minor failure, but it took a lot of time to find and fix. Condx seemed relatively good, but on Sun there was a lot of rapid Faraday fading.

#### **DL9NDD**

Gunter ended the contest with a score of 108x36 -- I worked in the 2nd part: S57Q, G4FUF, KD4LT, SM2CEW, WD5AGO, K2UYH, OE3JPC, KAORYT, W8MQW, W3AD, 7M2PDT, DL8OBU, DL0AR, DJ5MN, I2COR, DL4MEA for an initial (#), DK3FB, HA1YA, DL3EAG, DL4XX #, DF4UE # (4 x yagis and 80O w), IK5WJD, GM3JFG, FICH #, IK0EQJ, W0KJY, K1OR #, W5ZN, DK8VS, DL8QS, IN3KLQ and J03RNL. I am interested in skeds with WA7TZY, W8QX, N2HTL, NC7K, K9BCT, JH1EFA, JA5NNJ and JA2TY.

### **EA3DXU**

Josep in Nov added several new ones -- In the 2nd leg of the ARRL contest I finally I crossed over 100 QSO line, and ended the contest with 102x54 multiband with 66x30 on 144 and 36x24 on 432 for 550,800 points. I am really happy because this is my best score in 12 years on EME. Before the contest initials were made with EA8/ON5FF #74, PA2CHR #75, VE6TA #76, DJ6MB #77 and CT1DMK #78. In the Oct part there was excellent activity and many easy QSOs. I completed 23 OSOs and 19 sections as follows OH2PO, F1ANH #79, DL9K5, DL9NDD, ON5OF, OE5JFL, K1FO, N2QIU, F5AQC #80, OZ4MM, DK3BU, HB9SV, UR5LX, ON4KNG, PA3CSG, I2COR, SM3AKW, K0RZ, K5GW, JA5OVU, JH0YSI #81, G3LTF and EA3UM. On 25 Oct I worked 7M2PDT #82. In the Nov part there were similar conditions and I added 13 more QSOs and 5 sections with SM2CEW, K2UYH, N4GJV, W7FN, DK3WG, HA1YA #83 and DXCC 30, G3SEK, F5FEN, JA9BOH, VE1ALQ, DF3RU, UT5EC #84 and EA8FF. I am a small antenna (2 x 38 el M2 yagis and GS23B 950 w PA), and very much like to call CQ. I was fortunate to be answered by 11 medium/big stations (DK3BU, HB9SV, UR5LX, JA5OVU, JH0YSI, G3LTF, G3SEK, F5FEN,

#### **EA6ADW**

Peter worked on 23 cm 41x22 in the 1st part of the EME Contest. He was only active on Saturday (on 1296) during the Nov part of the contest. On Sunday evening Peter took the ferry to Barcelona with his wife, 2 dogs, the car and much home-stuff to return to DL for the winter. He expects to be back on the island in March. Peter also notes his LOC was and is JM19LU. (LOC JM19NW is his 10/24GHz-Portable-QTH.)

#### EA6SA

Josep in JM19KO will be QRV soon on 70 cm. EA6ADW is helping him to prepare his station. They tuned up a 450 w PA (700 w soon). He has EA6ADW's old  $4 \times 33$  el BV array. The open wire feed system still needs to be installed, as well as the LNAs.

#### F5PAU

Francis wrote -- I worked in the 2nd part of the ARRL contest on 1296 CT1DMK (559/559), OE9ERC (569/569), LA8LF (559/579), WA0OFS (449/559) for initial #89, K9BCT/4 (449/559) #90, VE6TA (559/559), VE4MA (449/559), NU7Z (449/559) #91, F5AQC (569/569), DL0SHF (559/559), 4X6UJ #92, JA6CZD (559/559), DF3RU (549/569), OK1KIR (559/569), NP4B (O/O) #93, NL7F (559/549) #94, F5PL (559/569), SM2CEW (559/569) and WA8WZG (O/559) #95 for a total of 56x31. (Francis, e-mail is looking for the postal address of DL0SB and 4X6UJ.)

## G3LQR

Simon now has systems for 70, 23, 13 and 9 cm. On 3400 he has 20 w in the shack from a TWTA, but feels he needs more power to be successful. On 13 cm he has 2 VE4MA amps. Back in July he made his 1st 13 cm QSO with OE9ERC (O/O) and has heard ZS6AXT, OZ4MM and DL3EBL. He made no 2300 contacts in the contest, but did copy OH2AXH. He spent most of his time on 23 cm where he is presently using a 4 x 2C39 PA giving only about 150 w at his feed, but is working to increase this level. In the 2nd part he QSO'd on Saturday W2UHI, F6CGJ,

EA6ADW, OE5JFL, K2DH for initial #52, LA8LF, K5JL #53, W4OP #54, VE1ALQ #55, OE9XXI and G3LTF, and on Sunday OZ4MM, ZS6AXT, SM4DHN, OH2AXH, PA3CSG #56, HB9SV, F5AQC, OK1KIR, S59DCD #57, K2UYH, K4QI, #58, OK1DFC #59 and SM2CEW for 24x18s. Heard were JH5LUZ, W7GBI, WA4OFS, CT1DMK, OE9ERC, F2TU, DC6UW, F5PL, N6BQ, F1ANH, EA3UM, WB5LUA, HB9BBD and K9BCT/4. Simon also on 70 cm and scored 8x8, but is not happy with the way his old yagi array is acting.

#### **G3LTF**

Peter ended the contest with a final score of 55x32 on 432 and 53x29 on 1296 --Before the contest on 13 cm on 15 Sept CWNR SM3AKW, ZS6AXT, W4HHK, OZ4MM and F2TU. All called on 2320 of course. I know Paul was listening there as he called "CQ G" (TNX Paul) but my power is not enough though I was hearing echoes consistently. I believe SM3AKW heard me. I worked on 1296, on 15 Sept CT1DMK, LA8LF, VE4MA, VE1ALQ, G3LQR, F5AQC, F2TU, OK1KIR, OE9ERC, OE5JFL, I6QGA, DD1XF, JL1ZCG for initial #126, 4X6UJ #127, JA6CZD #128 - nice to work him again, ON5RR, HB9SV, DD0SB #129 and GW3XYW, and on 16 Nov K4QI, K2UYH, F5PL, N6BQ, NU7Z #130, DJ9YW, DL0SHF on SSB, and on the last pass JH5LUZ, F1ANH, DF3RU, OZ4MM and SM2CEW. CWNR were DC6UW, NP4B, PA3CSG, JH3EAO, PA0JCA, NL7F, W0KJY, W7GBI and KB0PYO (3 multipliers!) On 432, I worked on 16 Nov N4GJV - great to chat with Ron again, W0KJY, WB6IMC, W7QX, KN6M for an initial, DL3EAG, SM2CEW, WD5AGO and N9AB. CWNR were WA7BBM, K2OS, UA6LGH and G4RGK. I lost my 1296 preamp, but replaced the NE321 with a FHX35LPT and got a real improvement, abt 0.4 dB NF in the WD5AGO circuit. Apart from this all worked well. I do think we need to address the question of 13 cm activity, perhaps with a separate weekend for the bands above 13 cm or some extra multipliers. It was a good contest, the WX was kind, and it was great to hear many old friends again.

## **G4ERG**

Peter's total for the contest was 48x28 for 134,400 point -- In the 2nd leg of test I added 18 contacts (half of which were initials). Worked were ON5OF, SM2CEW, K2OS for initial #85, W7QX #86, N4GJV, WB6IMC #87, KA0RYT, SM3AKW, W0KJY #88, W17Z, W8MQW #89, W7FN, HA1YA #90, 7M2PDT, DL4MEA #91, VE1ALQ, N9AB #92 and UA6LGH #93. Also heard were K3HZO, W5ZN, W8TN, WD5AGO, JS3SIM, YO2IS and JA9BOH. My totals stand at initial #93, WAS 19 and DXCC 24. I've added 28 initials with the new antenna system since the end of June. I shall be looking for skeds during the Dec SW via the NL or e-

## **GM3JFG**

Iain in the Oct and Nov contest weekends worked DL9KR, OE5JFL, OH2PO, UR5LX for initial #18, N2IQU #19, K1FO, N4GJV, OZ4MM #20 and SM2CEW #21. Equipment used was a new DEM transverter and 900 w from an RIW PA. The Rev. Canon Iain McHardy, GM3JFG, Navity, CROMARTY, Ross -shire, IV1 8XY is not yet on e-mail directly, but messages will be forwarded from: Iain, GM3JFG

#### **GW3XYW**

Stu missed the 1st contest weekend as he was away searching for a 3 cm TWTA at a radio flea market. Unfortunately Stu was unsuccessful. He was active on 1296 and worked on 15 Nov F5PL, DD1XF, EA6ADW, ZS6AXT, OE9XXI, LA8LF, OZ4MM, SM4DHN, OH2AXH, F6CGJ, JH3EAO, DD0SB, OK1DFC, OE5JFL, G3LTF, HB9SV, S59DCD, F5AQC, VE1ALQ and ON5RR, and on 16 Nov OK1KIR, W2UHI, EA3UM, K2DH, W4RDI, K5JL and CT1DMK for a score of 27x20. Conditions were good with strong signals, however at times CW signals seemed suffer from a "smearing" effect. Stu had a strange receive problem. His preamp started to show instability when tilting the dish or cycling the T/R delay. The cause turned out to be a bird nesting in his IMU feed horn. [I have had problems with birds and squirrels. Plastic screening can be used to protect the inside of the horn from uninvited residents.]

#### **HB9BBD**

Dominique writes -- My contest effort on 1296 resulted in 50x23x8 (QSOs x countries x states). This year hopefully is the last with the small 8' dish. 4 years listening with this small antenna resulted in 91 initials so far. The new dish will now be assembled and positioned, and should be operational in Jan. My contest log follows: Worked on 18 Oct F6KSK (529/549), ZS6AXT (549/569), OH2AXH (569/569), EA3UM (569/559), G3LTF (519/559), EA6ADW (569/559), W4RDI (569/559), SM4DHN (569/559), KB2AH (579/559), F6CGJ (579/549), K2DH (549/549), K5JL (579/569), SM3AKW (539/549), OE9XXI (589/569), WD5AGO (529/549), WB5LUA (539/549), W2UHI (559/559), W4OP (529/569), OK1DFC (519/549) for initial #85, F5PAU (559/549), JH5LUZ (529/559), F2TU (579/559),

OE5JFL (579/569), DD1XF (529/529) - needs QSL, F1ANH (559/549), S59DCD (539/569), I6QGA (559/539), DJ9YW (579/539), JA4BLC (529/559) and ON5RR (519/529) #86, on 19 Oct OZ4MM (569/559), DD0SB (529/559) - needs QSL, OE9ERC (599/559), DC6UW (559/559) #87, K2UYH (579/549), N6BQ (549/569), VE1ALQ (559/559) and IK6EIW (539/549) #88, on 15 Nov OK1KIR (539/549), LA8LF (559/549), JL1ZCG (549/539) #89, DL0SHF (579/569), HB9SV (579/559) - welcome to the club of the TH347s!, PA3CSG (539/549), F5AQC (559/559), F5PL (559/569), GW3XYW (549/569), and on 16 Nov 4X6UJ (519/559) #90, K4QI (559/549) #91 and CT1DMK (519/539). Some dupe QSOs were made during the contest with DL0SHF on SSB (53/55), K2UYH (579/559), EA3ADW (559/559), DC6UW (559/559) and I6QGA.

## **I2COR**

Luigi had very band WX conditions during the 1st part of the contest. 90 kmph winds made it impossible to use the dish. Ones life was in danger. During Nov WX was not good with heavy rain contributing rain noise. Despite these problems they QSO'd on 432, on 18/19 Oct OH2PO, OZ4MM, G4ERG, HB9SUL, DL9KR, K1FO, N2IQU, DK3FB, VE1ALQ, G4ALH, G3SEK, G4RGK, VE6TA for initial #239, G3LTF, JH4JLV #240. DK3BU #241, UA3TCF #242, UT5EC, JA5OVU, UR5LX, G3HUL, UA6LGH, EA3UM, EA3DXU, SM3AKW, S51ZO #243, CT1DMK, K5GW, N9AB, DK3WG, KD4LT and W8MQW, and on 15/16 Nov K0RZ, DL9NDD, DF3RU, JJ1NNJ #245, OE5JFL, 7M2PDT, JA9BOH, I5TDJ, JR9NWD #246, IK5WJD, DL4MEA #247, ON5OF, DL4XX #248, DL4KG, IN3KLQ, I5CTE, EA8FF, YO2IS, F1CNE #249, HA1YA, VE1ZJ #250, OE5EYM #251, N4GJV and WD5AGO for a score of 56x29.

### I5TD.J

Piero's contest 2nd leg report -- Conditions looked good during on Saturday, but so so on Sunday. I QSOed on 15 Nov K2UYH, DF3RU, K4QI, SM3AKW, N4GJV, W7FN, SM2CEW, JA5OVU and I2COR - CWNR were JL1ZCG, HG1YA and DL4MEA, on 16 Nov VE1ALQ and G3SEK - CWNR were WD5AGO, N9AB and JA9BOH. My contest score is 23x17. In the 1991 contest, I worked 38 stations and since then in the subsequent contests I ended up with a far lower number of QSOs. This year too, the 4 and 8 yagis stations, including Eurs, didn't show up into my receiver. Maybe the 1991 conditions were exceptional?

#### **IK2RIT**

Pioufauco writes that he is now QRV on 6 cm EME. He is using a 4.3 m .5 f/d dish with 25 w from a TWTA at a short (vert pol) IMU horn. Pioufauco is receiving .6 dB of Moon noise and 11 dB Sun noise (SF 84). He worked on 17 Oct OE9ERC (O/O) and I6PNN (O/M) and planned to be active again in Nov.

## **IK5WJD**

Alex writes -- After about one year of absence from the shack due to some work problems and family problems, (illness of my mother), Piero I5TDJ persuaded me to clean the dust from my yagis and get back on. In the last part of the contest conditions on 432 were good. I worked 18 stations and 3 initials as follows: UR5LX, K4QI, OH2PO, DF3RU, N2IQU, OE5JFL, N4GJV, SM2CEW, DL9KR, I2COR, JA5OVU, DL9NDD, K1FO, ON4KNG, G3SEK, K5GW #61, VE1ALQ #62 and W7FN #63. My standings are now up to #63 initial, 13 US States, 23 DXCC, 20 Grids and WAC.

## **JA4BLC**

Yoshiro's Nov EME report -- I was not allowed to be QRV for the Nov part of the contest because my mother passed away on 13 Nov. She was 82 yrs old and had been in the hospital for last two months. [My sincere sympathy and that of all the EME community for your loss.] Now all is back in normal. My contest score remains same as on Oct, namely 35 on 2 m, 18 on 70 cm, 22 on 23 cm and 2 on 13 cm. I will send logs via airmail this year. Just before the contest weekend on 11 Nov, I was fortunate to successfully contact JA8ERE on 432 (549/O) for initial #239 and on 2424 (M/O) for initial #17.

## **JA5OVU**

Tom ended up with 90x33 in the contest -- My '97 score was slightly better than last year. Stations worked on 70 cm were on 18 Oct N2IQU, WI7Z, VE6TA, K3HZO for an initial (#), W8MQW, N9AB, K1FO, JA2KRW, JA4BLC, W7QX, JR9NWC, JL1ZCG, JH4JLV, JJ1NNJ, 9M2BV, JA5NNS #, UR5LX, DK3BU, OH2PO, UT5DL, OE3JPC #, SM3AKW, DL4KG, G3LQR, DL6NAA, DL9NDD, JH1EFA, HB9SV, G4ERG, DL3EAG, DK3FB, G3LTF, S51ZO #, ON5OF, OZ4MM, ON4KNG, UT5EC, DK3WG, EA3UM, DL9KR, I2COR, YL3AG, OE5JFL and OE5EYM #, on 19 Oct W7FN, K5GW, N4GJV, K2OS #, K4QI, K0RZ, JA9BOH, K5AZU, JS3SIM, JA2TY, JH0YSI, DL4MEA, UA6LGH, PA3CSG, EA3DXU, G3HUL and DF3RU, on 15 Nov HO3A, K2UYH, WB6IMC,

7M2PDT, W7KK/6 #, WD5AGO #, W5ZN, K5WXN, KF0M #, DL8OBU, S57Q #, I5TDJ, DL5FN #, UT5EC (dup), S52CW, HA1YA, DL4XX #, IN3KLQ #, G3SEK, DL4KG (dup), F1CH #, YO2IS, G4RGK, G4ALH #, IK5WJD and G3HUL (dup), and on 16 Nov DF8LC #, PA2CHR, DK8VS, KL7HFQ, DF4UE # and SM2CEW. My array is 16 x 14 el (3.6 wl) rear- mounted yagis with pol rotation, FHX35LG 0.3 dB NF LNA and 8938 PA at 1.5 kw.

## JJ1NNJ

Kouichi's 70 cm report for the ARRL EME Contest Part 2 -- On 70 cm my system consists on RX of a 2SK609/2SK571 LNA, HB converter and TS850. On TX I use 3 x MRF176GU (Power MOS FETs) for a 250 w SSPA. The antenna is 16 x 13 el FO LR yagis. QSO'd on 15 Nov were at 1757 I2COR for initial #35, 1825 DF3RU, 1837 HA1YA #36, 2025 G3SEK #37, 1111 VE1ALQ #38, 1216 N4GJV and 1935 SM2CEW (449/439) #40. CWNR were 7M2PDT, JA9BOH and W7QX. Heard were UT5EC, JS3SIM, JO3RNL, W0KJY, JR9NWC, JR1RCH, N9AB, ON5OF, DL4MEA and PA3CSG for a total of 29x18 or 52,200 points.

## JH4JLV

Kaz's 70 cm ARRL Contest results for the 2nd period -- I worked WD5AGO for initial #54, JR9NWC, 7M2PDT, JA2TY #55, G3SEK, VE1ALQ and EA3UM for a score of 32x19 or 60,800 points. CWNR were W8MQW, K2UYH, JO3RNL, K5WXN, W7QX, W7GBI, KA0RYT, JA9BOH, JS3SIM and G3ERG. I'm planning to built a new antenna and linear amp for the next ARRL contest.

#### **KORZ**

Bill operated fixed vertical polarity in Oct and fixed horizontal pol in Nov. He QSOed on 18 Oct DK3BU, DL9NDD, EA8FF, F1ANH, F1CH, F5AQC, G3LTF, G3SEK, G4ERG, G4RGK, I5CTE, JA2JRJ, JA2TY, JH4JLV, JL1ZCG, JO3JJN, JO3RNL, JS3SIM, K1FO, K2UYH, K4QI, N2IQU, N9AB, OE5EYM, OE9JFL, OH2PO, ON5OF, OZ4MM, S51ZO, S52CW, UA6LGH, UR5LX, UT5DL, VE6TA, W7FN and W8MQW, on 19 Oct DK3FB, DK5WG, DL9KR, EA3DXU, G3HUL, HB9SUL, JA3IAF, JA5OVU, JJ1NNJ, JR9NWC, K5GW, KA0RYT, KF0M, KL7HFQ, N4GJV, ON4KNG, SM3AKW, UT5EC, W0KJY and W7CI, on 9 Nov OE3JPC, on 15 Nov 7M2PDT, I2COR, JA9BOH, K2OS, K5WXN, KB3PD, KD4LT, KN6M, SM2CEW, W5ZN, W6WE, W7QX, WA7BBM, WB6IMC and WI7Z, and on 16 Nov DF3RU, N2HLT, VE1ALQ,

WD5AGO. These brought him from initial #232 to #246 respectively with OE5EYM, F1CH, F1ANH, S52CW, F5AQC, JO3RNL, JS3SIM, JO3JJN, KL7HFQ, JJ1NNJ, OE3JPC, W5ZN, KN6M and N2HLT. W5ZN provided state #42. He still needs HI, ID, IN, KY, ND, NV, TN and VT for WAS. Standings are initial #246, Country 43 and State 42. ARRL contest results were 74x29.

#### K1FO

Steve missed the 1st day of the Nov contest weekend due to ice problems. A storm that was supposed to pass by on Friday stopped when it hit CT and deposited freezing rain for over 20 hours. When the storm was over the array had up to 3/4" (18mm) of ice on it which made it totally useless plus dangerous to attempt to use due to the weight imbalance created on a rear mount array. On Saturday afternoon the temperature rose to just above freezing and Steve went up the tower to knock the ice off. It was interesting to see that while the ice was about 1/4" thick near the ground, above tree top height the ice was much thicker. It took almost 3 hours to knock all the ice off the array. Near the end of the job the temperature dipped back below freezing which greatly increased the difficulty of removing the ice. The array ended up with a few bent elements and one missing director, but at least it was back in action for the 2nd evening. Activity was definitely up this year. Conditions were also better than the past couple years with the contest weekends near perigee and declination high. Although Steve operated over 20 less hours than in the 1996 contest (most of it due to the ice problems) he was up 5 QSO's from last year ending up with 121 x 37. In spite of the increased QSO count there were quite a few stations that got away including some of the bigger stations. Among the stations that were heard but not worked were K2UYH, WA4NJP, YL3AG, HB9SV, LU4HO and OM1TL. He was a bit disappointed to not even hear several stations that have been reliable QSOs in past EME con- tests. Among the missing in action were 4X1IF, A22BW, 9M2BV, SM2CEW, WA9FWD, UA9FAD and VK5MC. Steve also wonders if anyone has heard from Doug, VK3UM and does Doug have any plans to get back on 70 cm EME? Steve made 4 initials in the second contest weekend. New stations for both weekends were: on 18 Oct, F1CH, DH5NAH, WB4BKC, JJ3JRK and JI3GER, on 19 Oct ZS6PT and W7KK/6. On 15 Nov OE5EYM, on 16 Nov KN6M, K1OR and JA3SGR. Stations worked outside contest hours were on 11 Nov N2IQU, on 13 Nov KA0RYT, W3XS, W8MQW and N9AB, and on 22 Nov JA5OVU. Steve notes that in the 13 years that he has been on 70 cm EME overall the operating practices have improved significantly. The vast majority of stations now answer your CQ within a couple hundred Hz of your frequency. Years ago it seemed like you had to tune all over the band to find stations. QRM problems were minimal this year in spite of the increased activity. Stations now spread out from about 432.005 to over 432.030. The bottom 432.000 to 432.005 is now abandoned

ground -(Is this due to computer QRM?). He remembers that activity used to really pack in below 432.015 with stations making noise below 432.000 in the old days. Stations calling CO seem to end up positioned about 1 KHz apart which is just fine if you are using a narrow CW filter but leaves him wondering what the stations that use 2.1 KHz wide filters do? All this has resulted in the ability to work stations much quicker. The faster QSO pace has also seemed to make many of the operators less patient. In the old days stations would call you for over 30 minutes to get a QSO. Today is seems that if you don't answer a station after 2 calls they are gone. When ORM is high and you are searching for the polarity peak it may require more than 2 calls to pull out a weak station. Some bad habits continue, however. The most prevalent offense is not putting long enough spacing between CW characters and words and especially running calls together. The 2nd biggest problem is stations that call way off frequency. Steve found a couple of stations calling him so far off that he had to tune past another QSO to find them! 3rd on the list of operating problems is just sending CW too fast which causes the characters to get chopped up from the libration fad- ing. In all Steve had a great time in the contest and is looking forward to the DUBUS/REF contest this spring. Steve is would like skeds with the following stations that were reported QRV during the contest: YL3AG, DF4UE, DL5FN, DL9EBF and LA4GA. 70 cm EME totals for K1FO are #524 initials, 49 states and 75 DXCC. [See additional comments by Steve on proposed '98 ARRL EME Contest dates in the FINAL section of this NL.

## K<sub>1</sub>OR

John (ex WA1TFH in FN42) is now active on 70 cm EME from NH -- I operated the 1st weekend of the EME contest using a 4 x RIW19 array and a 8938 amp. I QSO'd OH2PO and N4GJV back in the Dubus contest last spring. I worked on 18 Oct OH2PO and DK3BU, and on 19 Oct DL9KR and N2IQU. I decided that I really needed a bigger array and so in the 4 weeks between the contest weekends, I built 4 new FO33's and replaced the RIW's, (and the mount). I almost didn't finish time due to the poor New England WX we've had. I worked on 15 Nov N4GJV, OZ4MM and SM2CEW, and on 16 Nov K1FO, K5GW, OE5JFL, DL9NDD, N9AB, W7FN and VE1ALQ for 14x12 in the contest. I also heard over the 2 weekends K0RZ, ON4KNG, HO3A, K2UYH, W0KJY, WA7BBM, WB6IMC and others. I plan to be active until the spring when I will be forced to move the array for some home remodeling. My e-mail is: John, K1OR

Dave's acticity report for the 2nd contest weekend -- I found conditions fine on 23 cm. There seemed to be plenty of activity, but my QSO rate was way down from the 1st weekend, (not that many new stations to work!). I ended the contest with 71x36. This was far and away my best ever on 23 cm. However, the single band 23 cm ops don't have to worry about that score, since I was a multi-op with 2 other stations - K2OS on 70 cm and N2WK on 2 m. On 70 cm, Frank (K2OS) had some trouble, but nevertheless worked 23x16, and on 2 m, Wayne (N2WK) did very well with his four yagis, working 56x27. So our combined score was 150x79 for a final score of 1,185,000. Not too bad for a modest 1st effort. Watch out next year!!! Just before the 1st contest weekend, I worked Scotty KD4LT (449/569) for initial #95 on 1296. During the 1st contest weekend, I had initials with OK1DFC (doesn't count since I've worked OK1CA before), JL1ZCG (O/O) #96, DD0SB (449/559) #97, JA0RBK (M/O) #98 and JA6CZD (449/449) #99. Between the 2 weekends, I sort of worked 9H1ES (O/439), which I didn't count because he seemed to need some practice with procedure - I never heard final R's, and on 11 Nov, I picked up W8MQW (M/O) for initial #100! During the 2nd contest weekend, I worked WA4OFS (449/549) #101 and 4X6UJ (449/559) #102. There were a couple of getaways during the contest. I never heard I6QGA, though I was told he was on. I missed 9H1ES (apparently he was on), also DD1XF, N4MW and W0KJY. I was surprised by some of the stations who WEREN'T active (at least, not on 23 cm) - LX1DB, SM6CKU, WB0DRL and G4CCH to name a few. Also, I heard no YL (Latvia) stations this year. There were 2 last year. I was very pleased with the performance of my PA. Great credit goes to Tom, KB2AH for constructing a cavity that just seems to work and work! I did add a heat exchanger (in the form of an automotive transmission cooler) to the water-cooling between weekends, and this kept the maximum water temperature down to about 85 degrees F in spite of endless CQ'ing, at 600-650 w output. Now the water in my water- cooled 60W driver gets hotter! I'm now looking forward to QSY'ing to other bands. I've been informed that South America might show up very soon on 23 cm (PY5ZBU), and I'll wait to see if that happens, to complete my other goal of WAC on 23 cm. After that, I'm going to try 432 and 2304 this winter. Everything for these bands is ready to go, so I expect that if the PY shows on 23 cm soon, I'll go to 2304, then 432. I think the dish will work through at least 3456. I plan to try that soon, as well. 5760 may be another issue. I don't know how well shaped the dish is, but if it has reasonable gain on 5.7 GHz, then I'll go there too. 10 GHz will have to wait till spring when I can put up a 12' solid dish and give it a try.

#### KB8ZW

Bill's contest operating time was limited by family commitments in the Oct session of the contest to Saturday night. Stations worked were N2IQU, VE1ALQ,

K4QI, K1FO, K5AZU, W8MQW, N9AB, S52FD, OH2PO, EA3UM, DL9NDD, N4GJV, UR5LX, UT5DL, DL9KR, K5GW, JL1ZCG, JA3IAF and JA2KRW. The Nov weekend was totally washed out do to ice and snow on antennas. Bill plans to be QRV for Dec SW and is interested in schedules. Bill tel 216-543-4991 and e-mail is:

Bill, KB8ZW

#### **KFOM**

John (EM17) found the '97 contest not quite as good as last year. He worked 13x11 with 2 yagis and 1 kw. Stations heard but not worked were W7QX, K4QIF, JL1ZCG, K2UYH, ON5FF, SM3AKW, K0RZ, JA2KRW, N9AB, 7M2PDT, WD5AGO, I2COR and W7FN. The loudest stations were N2IQU, DL9KR and OE5JFL. John's e-mail address is: John, KF0M

#### LA8LF

Anders contest report -- I scored 58x33 during the Nov contest weekend. QSOs included 8 initials with W4OP, DD0SB, 4X6UJ, WA4OFS, OK1DFC (I have not worked OK1CA before), JL1ZCG, DC6UW and KB0PYO. Lost were K9BCT/4, W6/SM0PYP, N4MW and W0KJY because my LNA was unstable during whole weekend. Before the contest I worked on 11 Nov W4HHK (569/M) on 13 cm for initial #9 and still only 16 w into feed. Last week I found my 23 cm noise problem. It was a video camera on top of a 70 m high building crane operating on 1297.8 MHz with a bandwidth of 8 MHz and 0.5 w into a vertical antenna. The crane is located 4 km from my QTH and I look straight into it. It completely wiped out my 23 cm EME operation since March. It is illegal in Norway and supplied by a Swedish company. SM EMEers be aware. Our FCC closed it down.

### NC1I

Frank has been slowly making progress on getting his EME array back up. Unfortunately, he missed the ARRL EME contest, but he does have all 12 new baluns soldered to the open wire phasing lines and on the array. He has cut the new LDF4-50 phasing lines and hopes to get them on the array and get a crane in to put the array back up by the 1st week in Dec. The only problem that would delay getting the array up is if too much snow accumulates on the ground. If the snow gets too deep, the crane won't be able to get to the array.

#### NL7F

Bill 1296 EME report for the Nov SW -- I QSO'd on the 15th EA6ADW (O/O) for initial #31 and DXCC 12, LA8LF (439/449), F5AQC (559/549) #32, VE1ALQ (439/529), W2UHI (439/539), W7GBI (539/M) #33 and state 10 and K2DH (539/549), and on the 16th OZ4MM (M/O), OE9XXI (559/549), F5PAU (549/559) #34, OE9ERC (569/559), OE5JFL (549/559), K2UYH (549/549) and WB5LUA (549/549). On both days I answered JL1ZCG, but he never got my call. Condx sure seem better when the preamp works right. My system receive temp is now about 60 deg K (including cold sky noise). But at moonrise ground noise due to the trees is 2 dB at 25 deg elevation. I can still hear echoes at 18 deg el thru 4 dB of ground noise. Only a chain saw will make things better!

## **OE5JFL**

Peter ended the contest with 120x39 on 70 cm, 64x31 on 23 cm and 101x40 on 2 m for an overall score of 3,135,000 - exactly the same as last year! Initials were on 70 cm were K1OR, KN6M, W6VPH, K7XC, W7QX, VE1ALQ/9 [?], DF4UE, DL5FN, DL4XX, EA2LY, F1CH, F1AQC, JA2TY, JJ3JHP, JA3SGR and JI3GER, and on 23 cm W3XS, W4OP, WA8ZWG, KB0PYO, DD0SB, DC6WU, JL1ZCG, OK1DFC, PA0JCA and VE1ALQ/9 [?]. This brings me up to initial #502 on 70 cm and #177 on 23 cm - it is several since I have had to make any skeds. This will probably be the last year I put a major effort into the ARRL EME contest. I have been active for 10 years. It has been a lot fun, but I am a little tired of contesting now. In the future I plan to reduce my contest time (at least not as competitive) and spread my activity over the whole year. I am looking forward to the EME Conference in Paris.

#### **OE9XXI**

Peter's Oct report arrived on time but was misplaced by us and thus did not appear in the Nov NL. My apology for this error. Now we have Peter's Oct and Nov reports. He operated only on 1296 -- In Oct I achieved 54x31 including VE1ZJ (449/579), OK1DFC (599/589), 4X6UJ (439/559), DD0SB (549/579), WA4OFS (449/549), KB0PYO (549/559), VK1VP (O/O), DH9FAG (449/579), JL1ZCG (549/579) for initial #217, ON5RR (549/549), PA0JCA (439/529) #218 (6.3 m dish and 80 w linear pol) and 9H1ES (43/44) and NL7F (43/54) on SSB. 53 QSOs were made on random. CWNR was PA3CSG. In Nov I added VE4MA (559/579), K9BCT (449/559), NU7Z (549/559), G3LQR (559/589), CT1DMK (569/579), F5AQC (579/579), LA8LF (569/579), N4SZ (449/559), OK1KIR

(569/579), DL0SHF (56/58) on SSB, 4X6UJ (549/579) dup, DD0SB (549/559) dup, JR9NWC (O/O) #219, JA6CZD (559/569), PA0JCA dup, GW3XYW (569/569), F5PL (569/579), K4QI (569/589), NP4B (449/599), NL7F (549/559) dup, SM2CEW (559/579) and W0KJY (O/O) for a contest score of 72x36.

#### OH2AXH

Jukka (OH6DD) reports that his team worked in the 1st leg on 1296, on 18 Oct EA3UM (569/559), ZS6AXT (569/589), HB9BBD (569/569), OK1DFC (569/569) for an initial (#), G3LTF (559/569), SM3AKW (569/569), EA3ADW (569/569), HB9SV (579/579), W3XS (559/569), W4RDI (569/579), F5PAU (569/569), DD0SB (559/559) #, 4X6UJ (O/O) #, F6CGJ (579/57), K2DH (569/569), W4OP (559/569), S59DCD (559/569), KB2AH (579/579), WA8WZG (O/539) #, F6KSX (549/569), W2UHI (559/569), WD5AGO (559/559), JH5LUZ (549/559), SM4DHN (559/559), DD1XF (539/449), OE5JFL (549/569), F2TU (559/559), JA6CZD (549/559), DF3RU (539/559), F1ANH (579/569), DH9FAG (429/559), JL1ZCG (539/559) #, ON5RR (539/539), OE9XXI (589/569), S59DCD (53/55), DC6UW (54/56), I6QGA (52/53), JA4BLC (559/559), JA6CZD (549/559), DJ9YW (559/579) and DD0SB (31/54), and on 19 Oct OZ4MM (579/579), OE9ERC (599/569), KD4LT (539/559) #, K5,JL (569/569), K2UYH (569/569), WB5LUA (559/559), N6BQ (549/539), VE1ALQ (559/559) and WA4OFS (449/449) for a score of (47x23). Ops were OH2AXH, OH2BNH, OH2LCT and OH2BSH. [I do not yet have a report for Nov.].

#### OH2PO

Matti's group finished the contest with 147 x 43 on 432 -- Our results were not as high as we had hoped, since our old friend Mr. Murphy visited us during the 1st part. We had very high winds and heavy rain, and the whole 2-dipole feed was blown off. When setting it back, we did not notice that the feedline to the other dipole was cut off. Some 8 hours of effective working time was lost. Due to nearby buildings we can not be QRV at moonrise for Moon el less than 10 degs, so additional hours were lost. Band conditions were, as most of the people have said, very stable. Operation was done mainly by Jukka OH6DD with Toni, OH2JTE. [Last year Matti's team were the multi-op winners for the 432 MHz band, but somehow their score among others were lost in the ARRL's contest report. Hopefully this year there will not be a repeat of this problem.]

#### OK1DFC

Zdenek used the same equipment in the 2nd part of the contest because of time pressure from work -- The WX was again bad with rain and wind the 1st night, but we were able to complete 49 QSOs on 1296. In the 2nd part we QSO'd JL1ZCG (449/439), OK1KIR (449/439), JH5LUZ (dup), LA8LF (449/439), I6QGA (449/449), OE5JFL (559/559), 4X6UJ (O/O), ON5RR (449/429), OE5ERC (559/559), OZ4MM (559/559), DC6UM (449/439), PA3CSG (559/549), DD1XF (449/O), DJ9YW (449/439), F5AQC (559/559), GW3XYW (O/449), VE1ALQ (559/559), PA0JCA (339/449), F5PL (449/449), K4QI (449/339), K2UYH (559/559), G3LQR (439/439), N6BQ (559/439), CT1DMK (449/449), F2TU (559/559), NU7Z (O/419) and SM2CEW (O/O), all together 49 QSOs, 23 DXCC and 8 WAS for 156,000 points. I plan to attend the Paris EME Conference in Aug with Franta OK1CA.

#### **ON5RR**

Marc reports that he survived the contest -- I am now off for 2 weeks under the Carebian sun ... We should do this after every EME Contest - Hi. In the 2nd part, we started Saturday 15 Nov at about 1800. It was raining, but conditions seemed not too bad. We worked 15 stations in total. Our initials were: OK1DFC, I6QGA, F5AQC and 4X6UJ. The strongest station heard was HB9SV - great signal and very, very loud. CWNR were JL1ZCG, DD0SB, JH3EAO, CT1DMK and W4RDI. We shut down Sunday at 0300. Our score was 42x24 on 1296.

#### **OZ4MM**

Stig writes -- In the last part of the contest I found the condx great on Saturday morning, until a heavy rain started here. I began operation on 13 cm and worked F2TU, ZS6AXT, OH2AXH and W4HHK. CWNR was SM3AKW and nil was heard from G3LTF on 2320. I switched between 432 and 1296 the rest of the weekend. On 432 I worked SM2CEW, K20S for an initial (#), KN6M #, W5ZN #, S52CW, KL7HFQ #, W0KJY, DH5NAH #, WD5AGO, K5WXN, DF3RU, K1OR #, KB3PD, W6WE #, G3HUL, JR9NWC, DL8OBU, 7M2PDT, JA5NNS #, HA1YA, KD4LT, HO3A, W1ZX, K7XD #, W7KK/6 #, ON5OF, EA3DXU, DL4KG, W7HAH, IK5WJD, DL5NH #, DK8VS and GM3JFG #. On 1296 I QSO'd I6QGA, EA3UM, JL1ZCG for an initial (#), HB9SV, F6CGJ, 4X6UJ, DH9FAG, OK1DFC, F5PL, LA8LF - great signal, G3LQR, DD0SB, F5AQC, JH3EAO, SM4DHN, DL0SHF, JH5LUZ, DF3RU, GW3XYW, PA0JCA#, OK1KIR, JA6CZD, K4QI, PA3CSG, K9BCT, CT1DMK, W0KJY, NU7Z, N4HZ #, VE1ZJ, DJ9YW, NL7F and G3LTF. Between Saturday and Sunday night my 432 preamp blew, because of radiation from the 1296 feed. (I had forgot to switch the 432 system off!). So in the middle of the night, dark and rainy, I put a 500 w

spot in the garden and spent most of an hour changing to a spare preamp. Now I am sure, if not all the neighbors already knew how crazy EME hams can be, NOW THEY KNOW!. My XYL and the kids know from past years. They leave for the whole weekend, so I can have fun with the Moon - Hi. Overall contest results were 4x4 on 13 cm, 64x31 on 23 cm and 112x36 on 70 cm for a total of 176x71 giving 1,249,600 points.

## **PA0JCA**

Jan (PA0PYL) says -- Yes, we finally managed to get the dish up and running! Although very limited we were able to make some QSOs for the 1st time. It was very surprising to find everybody in nearly 20 kHz of the WIDE band! Some stations call on almost the same frequency. We ran 100 w into a 2 dB coaxial cable and a 0.4 dB preamp. We used an OE9PMJ linear feed (temporary). The Sun noise was measured at 13 dB. Initially we used the IN3HER tracking program, but found the dish ran off the moon after a while. We found no stations detectable when dish is off by to 10 deg el! The call used was PA0JCA. This will continue for 23 cm activity, and my call will be used for 3 cm when we are ready. The following stations were worked: OE9XXI (449/529), OE9ERC (339/529), HB9SV (O/M) for initial #5, OZ4MM (O/M) #6, F6CGJ (O/529) #7, F5AQC (529/519) #8, OE5JFL(559/M) #9 and OH2AXH (O/O) #10. CWNR were F5PAU and PA3CSG although we detect our own echoes many times while calling. (Possible this was due to a pol problem?). We are constructing a IMU circular feed and will have 1000 w available soon.

### RW3BP

Sergei was active on 3 cm on 15 Nov and copied from 0400 to 0540 WB5LUA calling VE4MA and getting (T) from him. Then I heard WB5LUA and WA7CJO on SSB followed by a short QSO between WB5LUA and W6/SM0PYP. I heard W6/SM0PYP (M). Then WA7CJO called CQ. I also transmitted CQ 2 or 3 periods, but received no reply with my low ERP.

### **S51ZO**

Joze operated the contest on 432 with a TS940S, LT70S, MG1302 LNA, 400 w PA and 8 x 33 el DJ9BV 10 lambda yagis. He scored 28x19 will operating only part of the contest. CWNR many times were EA8FF and JL1ZCG. Joze feels it's time to pump up his power with GS35. Skeds can be arranged via his wife's email at:

#### **UR5LX**

Sergej was QRV on 432 15/16 Nov during contest. His final score was 116x39. Initials were made with WD5AGO, UT3LL, GM3JFG and JR1RCH. Sergej's 70 cm EME totals are now up to initial #443, WAS 39 and DXCC 58.

#### UT3LL

Valery is new station on 432 EME. He is using 2 x F9FT yagies and 400 w PA. His grid is KO70wk. In the contest he wmade his 1st 2 contacts with DL9KR and UR5LX.

## **VE1ALQ**

Darrell writes on the contest -- Well another great contest is in the books, I had a great time considering I lost 20.5 hours total moon time for various reasons. In the 1st half I thought conditions were excellent on both 70 and 23 cm. Signals were excellent on both bands, but I lost 14 hours of Moon time either not waking up on time, or falling asleep during the lull between the Eur and Asian windows. I believe most NA do the same. Things become very, very quiet. The 2nd half was rather different, on 15 Nov signals were very very good on 23 cm until snow started filling my dish. Three times I had to point the dish at the ground and hammer the rim of the dish to get the snow to fall out. Snow is a great attenuator on 23 cm. On 16 Nov snow was not a problem, but we had an AURORA lasted for nearly the complete Eur window. I 1st noticed a significant buzz on the signals on 23 cm, and the signals appeared quite broad. I then went to 70 cm as planned at 0100, and the AURORA effect was much more severe on that band. All signal were very, very broad and appeared to be modulated at 120Hz. Signals were strong, but I just could not find a clean note on any of them, my own echoes sounded terrible as well. I received a phone call from Grant, Ve6TA, and he thought he had RX problems; the AURORA effect was so bad at his QTH. My final score on 1296 was 54x34 with 5 initials: DC6UW, G3LQR, W4RDI, DD0SB and 4X6UJ. I also had an initial with KD4LT on 12 Oct. My totals on 23 cm are #90 initials, 24 DXCC, 18 States and 80 Grids. On 432 my score was 60x35 with 14 initials: UT5EC, F1CH, S52CW, OE5YM, K7XD (sked), IK5WJD, DL4KG, K1OR, JO3RNL, JJ1NNJ, WB6IMC (sked), N9AB, KL7HFQ and K5AZU. My total now on 70 cm is #140 initials, 29 States, 28 DXCC, and 101 grids. My whole

system, dish tracking, DL9EBL 23 cm cavity and my HB 8938 K1FO/W6PO design cavity amps worked like a dream. I am now looking forward to the next contest.

#### W1ZX

Willie has not been QRV the last 3 or 4 months, because he has been building a new dish (32' with a F/D .55 and 24 ribs). The new 32' dish is up with the help of a sign crane, and is working on 432. Later this winter Willie plans to add 1296. He has had some startup problems, like Moon tracking, camera alignment, counter balance, high VSWR, etc. Willie was QRV in the contest on 16 Nov for 1.5 hours and worked 7 stations. Willie is looking for skeds and needs 3 more states for WAS - ARK, KY and NEB.

#### W5ZN

Joel after the contest completed a 5760 MHz EME contact with WB5LUA. This was the 1st 6 cm EME contact from Arkansas! Joel was using a 10' dish, 18 w, and a homebrew WR-137 to 1.5" copper pipe feed with coffee can scalar ring and LuaCom preamp. WB5LUA was running his normal station. Moon conditions were not good. The moon was at apogee, but the contact was completed after about 5 sequences.

#### W7GBI

Charlie bring us up to date on his doings -- During the contest I was on 1296 on 15 Nov and worked 22 stations with 7 initials. I then switched to 432, but I now have so much noise and intermod that I only stayed long enough to work 2 stations. On 1296 I am running my new 3K2500lx klystron, but temporarily at only 500 w due to the type N fittings. As soon as I can get some bigger LC or EIA flange connectors, I will boost the power up. On 16 Nov I was all set to come on 13 cm and was just waiting for the Moon to come up out of the trees when the new motor on my elevation quit. One coil just opened up. I was all done and just had to give up. I now have another new motor and a spare. My tree problem continues to get worse. The resort hotel to the east of me had planted new trees that have grown like weeds. I am now blocked for the first hour after moonrise. I hope to see everyone in Paris next year.

#### W7KK

Dave in (CM88vc) is new to EME -- I am now QRV on 432 with a TS-790, LA-70B at 900 w and 4 x FO-22 (h). I have 4 more antennas almost ready to go and other improvements planned. In the contest I worked on 18 Oct at 1126 N2IQU (O/439), 19 Oct at 0536 OH2PO (O/O), 0605 UR5LX (O/O), 0633 DL9KR (529/549), 0726 K1FO (559/439) and 0830 K5GW (O/O), on 15 Nov at 0959 JA5OVU (O/O), and 16 Nov at 0506 N4GJV (O/O), 0618 OZ4MM (549/539) and 0808 SM2CEW (559/549). All contest QSOs were random and my score was 10x10. During the contest I used the call W7KK/6 to comply with the rules as I am currently living in CA, but will be moving to Montana in a few years. I also worked on 8 Nov at 0410 KA0RYT (O/O) on a sked. I am now up to initial #11 and will be looking for more although things will be hectic for a while at home as the XYL is expecting our 2nd harmonic any day now. My e-mail address is: Dave, W7KK

## **W8MOW**

Chuck is now QRV on 1296, as well as 432 -- An S-9 corona noise appeared the 1st night of the Oct weekend, never to return. After that the contest was without incident. I worked on 432: the 1st weekend N2IQU (569/559), K1FO (569/549), OE5JFL (569/559), OZ4MM (579,529), EA8FF (449/549) for initial #48, K4QI (569/559), N9AB (559/559), OH2PO (559/569), N4GJV (559/549), N0HJZ (549/559), UR5LX (569/539), K2UYH (449/559), DL9KR (559/569), W9QX (O/O), W7CI (559/459), G3SEK (559/559), K5GW (569/559), OE5EYM (partial), JA5OVU (559/549), K5AZU (569/569), KB8ZW (O/O), K0RZ (549/449), KA0RYT (O/O), EA3UM (549/549) #49, I2COR (559/559), JL1ZCG (569/539) #50, JA9BOH (O/O) and JA3SIM (O/O) #51, and on the 2nd EA8FF (dup), K2OS (O/O) #52, SM2CEW (569/559), W5ZN (559/559) #53, WI7Z (559/559), K5WXN (549/449), W0KJY (partial), G4ERG (partial), DL9NDD (O/O), SM3AKW (O/O) #54, W7FN (559/559), JH0YSI (559/449) #55, WB6IMC (559/559) #56, WA7BBM (O/O) #57, 7M2PDT (559/559) and KN6M (O/O) #58 for a single band score of 39x20. I was also briefly on 1296 and worked KB2AH with my 12' TVRO dish and a 20 W brick.

### WB2VVV

Chis regrets to report no activity during the 2nd contest weekend due to icing of his antenna array and tower. The antenna system return loss/VSWR was unacceptable and climbing the tower to attempt de-icing was too dangerous.

### WD5AGO

Tommy writes -- Our group had a good time in the contest. We operated on 2, 70 and 23 cm. New ones the 1st weekend on 23 cm were S59DCD, W4OP, OK1DFC, DC6UW, DD0SB and ON5RR. On 70 cm in Nov I used the 5.5 m dish and 700 w the 1st night. New ones were UR5LX, EA8FF, G3SEK, UA6LGH, WB6IMC, JA0OVU, JA2KRW, JL1ZCG, JS3SIM, WI7Z and JH4JLV. Just before the JA window we modified the amp slightly to get 1,200 w out. On the next night we added HA1YA, DL4MEA, DK3WG, UT5EC, KA0RYT, KB3PD, DL4KG, G4FUF and G4RGK. The amp we used was a 4CX1600 from W7QX. Most stations worked were vert pol on both TX and RX. Our final score was 42x22 on 70 cm and 43x23 on 23 cm. I will be on 23 cm again for the Dec SW.

#### **ZS6AXT**

Ivo's report for the 2nd leg of the ARRL EME Contest -- I worked on 15 Nov, on 13 cm: OZ4MM, W4HHK, SM3AKW and F2TU for initial #21 - sorry that I missed G3LTF on 23 cm: LA8LF, G3LQR, F5PL, SM4DHN, DF3RU, OE9ERC, OK1KIR, GW3XYW, JH3EAO, F5AQC, 4X6UJ for initial #127 and CT1DMK, and on 16 Nov on 23 cm: VE1ALQ, WB5LUA, K4QI and N6BQ, and on the last pass only SM2CEW. CWNR were DL0SHF, 9H1ES, PA0JCA, K9BCT and W0KJY, plus few others. With the exception of Sunday evening, I had good WX and so my dish was spot on the Moon, thanks to the CCTV camera! On 22 Nov I worked on 23 cm NP4B #128 and country 29 and NU7Z #129. Both were quite weak, I had strong gusty winds which didn't help. My contest totals were 58x27 on 23 cm and 6x6 on 13 cm with 5 initials on 23 cm and 1 on 13 cm. Conditions were average to good with occasional fade outs on 23 cm. I think it is high time for review of the rules and scoring for this contest. I was disappointed by the very poor participation on 13 cm. There must be higher points per QSO for the bands from 23 cm up to attract reasonable activity. Alternatively a separate microwave contest should be considered. Tom, WA8WZG is organizing just such contest. Ideas and comments on rules etc, should be directed to him.

### **ZS6PT**

Peter is now QRV on 70 cm and was active during the contest -- Condx seemed good during the 1st part of the contest, but during the 2nd half the WX locally was very bad. I am now 150 w with a 5 m dish. I QSO'd during the 1st part DL9KR, OH2PO, OH1FL, K1FO, N2IQU and UR5LX. Heard were OZ4MM, JL1ZCG, OE5JFL and a few weak stations for which I have only incomplete

calls. Sorry to DL9NDD for missing our sked due to bad lightening and rain. I will QSL all contest QSOs via the bureau.

#### **K2UYH**

I must admit I was a little disappointed by our results this year. Everything seemed to work fine, and I was assisted by 2 fine contest ops K2TXB and KC2TA, both of whom have experience on EME. Yet our score was not where I felt it should have been. I guess I should push for the Dec contest dates proposed by K1FO - (see the final section of this NL), as tree blockage is a problem and the leaves were not fully off the trees by the 2nd weekend. It also rained both days in Noy, but I do not think this affected our score greatly. We operated exclusively on 432 the 1st night QSO'ing at 0213 W5ZN (O/O) for initial #591, 0244 UT5EC (O/O), 0250 WD5AGO (O/O), 0255 EA8FF (O/O), 0301 UR5LX (O/O), 0306 KB3PD (O/O), 0314 I5TDJ (O/O), 0330 OE5EYM (O/559) #592, 0356 DL9NDD (O/559), 0402 DF3RU (559/449), 0413 F1CH (O/O), 0419 WB6IMC (O/O), 0423 W5ZN (549/549) dup, 0455 KN6M (O/O) #593, 0507 W0KJY (O/O), 0515 SM3AKW (O/O), 0525 K2OS (O/O), 0550 S52CW (O/O), 0556 G3LTF (O/O), 0625 EA3DXU (O/O), 0653 K5GW (O/O), 0709 N4GJV, 0933 JA5OVU (559/559), 0954 JA2TY (O/O), 1002 JA2KRW (O/O), 1013 7M2PDT (O/O) and 1106 JS3SIM (O/O). We spent the 2nd night on 1296 contacting at 0152 EA3UM (559/559), 0201 CT1DMK (559/559), 0214 HB9BBD (559/579), 0219 G3LQR (O/O), 0225 LA8LF (559/559), 0235 OK1DFC (O/559) #153, 0313 4X6UJ (O/O), 0322 G3LTF (559/559), 0345 F5PAU (O/549) dup, 0355 K4QI (O/559), 0406 OE9ERC (569/569) dup, 0430 SM4DHN (569/559), 0455 DJ9YW (559/559) dup, 0516 DL0SHF (55/55) on SSB, 0534 SM2CEW (559/559), 0613 NP4B (O/O), 0627 OK1KIR (559/559), NU7Z (O/549), 0744 NL7F (549/549) dup, 1044 WA8ZWG (O/O) and JH3EAO (559/569) for a total on 70 cm of 61x28, and on 23 cm of 53x33.

## **NETNEWS**

W7QX's score was 35x20 all on 432. He thought conditions were terrible on 16 Nov.

**SM2CEW** ended with 243x92 on 3 bands, 140x42 on 2 m, 75x31 on 70 cm and 28x19 on 23 cm.

**K7XD** is QRV from Vancouver, WA with 4 yagis and 600 w.

**KN6M** (EM13) is QRV on 432 with 4 x FO25s and 1.5 kw. He made a number of QSOs, but could not dig out others that called. He plans to put up more antennas for better hearing.

**LU7DZ** is the same as LU4HO. He needs SA for WAC and then will move up to 23 cm.

**N6RMJ,** Pat in DM14 is just getting started on EME with 4x13 lambda yagis and 800w on 70 cm. His e-mail is: Pat, N6RMJ

**ON5OF** scored 48x25. He had an SSB contact with OH2PO after the contest.

**WB5LUA** scored 49x? and worked NP4B on 23 cm. On 6 cm Al worked JA7BMB for his initial QSO. SM4DHA worked JA7BMB on 6 cm after Al.

DL9KR finished with 137x42 on 70 cm. Jan had 10 initials and now is up to #680 in 80 countries and 50 states.

**DF4UE** (JN48) is a new station on 432 with 4 BV yagis and 800 w. He will be QRV during the Dec SW.

**AL7JM** is now WL7U.

**CT1DMK** had 34x21 on 23 cm and 16x14 on 70 cm with no 10 GHz activity.

**W7CNK** is getting echoes on 5760 need, but has problems on 10 GHz. He is also putting together a 70 cm station with 4 x FO33 yagis and 800 w.

**WA8ZWG** scraped the ice off his antennas and got on 23 cm to score 13x9.

**N2IQU** finished with 132x37 in the contest on 432.

**W4HHK's** contest total on 13 cm is 6x6.

W2UHI had 62x35 in the contest and is up to initial #101.

**KA0RYT** scored 43x19. He heard W1ZX and worked WD5AGO and UA6LGH on random.

**AF1T** will be on 23 cm in the future from NH.

**HP3XUG** will not be QRV for the Dec SW. Louis had poor results in the 2nd part of the contest and ended with 15x11.

**W4RDI** is QRV on 23 cm and working on feed. He scored 43x26 on 23cm and had a lot of fun in the contest.

**NU7Z** scored 21x18 with 10 initials on 1296 including ZS6AXT. He has also finished a 903 feed and has 260 w out.

**VE6TA** finished with 20x16 on 70 cm and 6x5 on 23cm.

**N2HLT,** Leon ended with 15x13 on 70 cm. He is interested in skeds for the Dec SW.

**S52CW,** Uros was QRV during the contest with 300 w and 8 yagis.

**W4OP** scored 43x26 on 1296.

**N6BQ** ended with initials and 39x? on 23 cm. He had only 200 w and preamp problems.

**DK3WG** end with 40x21 on 70 cm.

**W7FN** finished with a 64x27 total.

**KB0PYO** has a new e-mail address: **KB0PYO** 

**K5.IL** ended with 65x34 on 23 cm.

**K9BCT/4** finally got everything working on 1296 and worked 12 stations. He ended up running 250 w.

**VE4MA** made 10x8 in the contest on 1296 and had a partial with WB5LUA on 10 GHz.

**F1CH** is new operator on 432 EME with 4 x 26 el yagis. They were active in contest on both the 1st and 2nd parts. Operators were F5IVP and F5SDD.

## FOR SALE

W1ZX has for sale **Dielectric-Coaxial Dynamics 1000A Wattmeter** \$US115 + shipping, **Bird 43 Wattmeters** (1) \$170.00, (2) \$185, (3) \$200 with a new meter movement, (4) Bird 43 wattmeter, fair condition (broken meter face meter glass) \$US125 + shipping, **AIL 75 Noise Figure Meter** (good condition) \$US275 + shipping, \$US250, **Noise Comm Noise Diodes NC305** \$33 and an **HP 415A SWR meter** \$US30. Call Willie at 301 645 5584, 1930-2230 EST, FAX 301 645 6853, 24

hrs, E-mail: Willie, W1ZX

WB4BKC, Andrew, who is now QRV on 432 has for sale a **2 m EME array, four 17** el M2 yagis, 33' boom length, H-frame, 4 way power divider, all phasing lines, M2 elevation system. I will sell as a complete package or separately. **2 meter 8877** power amp with power supply with cabinet, 1500 w output. One 8877 tube brand new in the box. Never opened. My home phone number is 954-782-2894. E-mail is: Andrew, WB4BKC

K9ZZH, Dick needs info on a Motorola ATV6060 RF Amplifier which uses 2 Motorola A 6060V surface mounted IC's.

W7CI is still **looking for 3CX800**.

WA8WZG has Microwave Update Proceedings available \$US13 shipped.

KB2AH has a full line of cavity amps and 1, 2, 4 and 6 tube ring amps, lin/circular feed horns and LNAs for 432 and 1296. Tom also has mounting blocks for K1FO yagis. For full details see Tom's 1296 WEB page:

for more details and pricing info e-mail: Tom, KB2AH

or phone 908-223-5067, FAX 908-223-0901 (24 hrs) or voice 908-223-8124.

## **FINAL**

There has already been much discussion of dates for the '98 ARRL EME Contest. Both opportunities and complications exist this year. Some stations have suggested moving the contest back to Oct and Sept to take advantage of the better WX. Ian, G3SEK writes that 1998 looks like a good year to try this. The only half-decent weekends are 12/13 Sept, 10/11 Oct and 7/8 Nov. Background noise will be high on 144, but the weekend of each month with lowest background noise is also quite close to new moon and apogee, so there would be sun noise and also weaker signals. On the other 2 weekends of each month the Moon is too far south to give adequate operating time in the Northern Hemisphere. (High declinations give more contest hours to the greater number of people North of the Equator, but they do penalize S Hemisphere stations. All I can think of is to award special certificates to the leading southern hemisphere stations.) The bad news is that the 7/8 Nov weekend is also the IARU Region 1 VHF/UHF CW contest - the low end of 2 m fills up with non-EME CW contesters, so scheduling

the contest to include that weekend would be interpreted as a hostile act by ARRL! Therefore 1998 might be a good year to move forward a month to Sept and Oct.

Steve, K1FO has also put a lot of thinking into the question of contests. Steve comes to some of the same conclusions as Ian, but from a different point of view and recommends moving the contest a month later rather than earlier. Even though Steve lost a day of operating due to the WX this year, he does not feel that moving the contest to Sept is necessarily a good idea. He notes that in NA and JA Sept is peak hurricane season. In 1998 the Sept high dec Moon weekend will coincide with the ARRL Sept VHF QSO Party. He feels this eliminates the possibility of using the best Sept weekend. Steve also has heard many comments from 2 m operators requesting the low sky noise weekend. This would be a bad choice in Steve's opinion because the Moon will be near zero in dec, at apogee and also close to new Moon. Around new Moon, the Moon is in the vicinity of the Sun. Sun noise in side lobes and even the main lobe can be very degrading, especially at 2 m with its wider beam widths. The low dec really causes problems with common windows. For example on near zero dec weekends the common window between the northeast US and JA is less than 2 hrs on any given day. When you consider that most stations need at least 10 degs of el, the common Moon window with greater than 10 degs el becomes less than 15 mins on the 1st day of the weekend, and non existent on the 2nd. Similarly when comparing the windows from Eur to the west coast of the US, the common window when the dec is 4 deg is only 3.5 hrs. The common window when the Moon is above 10 degs on both ends is about 1.5 hrs! If the window requirement is 20 degs on one end and 10 degs on the other end, the common window is 30 mins. If 20 degs is required on both ends there is no common window. I have also heard the argument that low dec contests would be fairer to southern hemisphere stations. I hate to sound callous, but there are less than 10 stations in the southern hemisphere that are ORV on 70 cm and higher bands. In addition if you make common window calculations there is little or no difference in common window times between northern and southern hemisphere stations. For example when the dec is +3, my window with VK5MC is 2 hrs 10 mins. If the dec is +17, my window with VK5MC is 2 hours 3 mins! Another example is the window between G3SEK and ZS6AXT, at +19 dec it is 11 hrs, at 0 dec it is 10.2 hrs, and at -18 dec 8.4 hrs. Steve encourages everyone, north and south, to spend some time with their Moon tracking programs looking at common windows. It will be hard not to conclude that high dec is best for all. A look at possible dates shows that 12/13 Sept conflicts with the ARRL Sept VHF OSO party. 19/20 Sept is not acceptable as 20 Sept is new moon! 7/8 Nov is not acceptable because it conflicts with IARU Region 1 VHF/UHF CW contest. 14/15 Nov is +2 to -4 dec, apogee, low sky noise, with a 40 deg Sun offset. 5/6 Dec 5-6 is +19 dec, perigee, 140 deg Sun offset and medium sky noise. Steve concludes that 10/11 Oct and 5/6 Dec would be the best

compromise dates because: 1) The dec is highest (>+17 degrees on all days), 2) The moon is near perigee (3 & 4 days after perigee both weekends), 3) There is good Sun separation (110 - 140 degs), and 4) Sky noise, although not great, is acceptably low. The degradation on 2 m will be about 1 dB higher than the following weekend which is at apogee, near new moon and at +5 to -2 dec.

I agree with Steve's arguments except with regard to 12/13 Sept. I do not see why the ARRL's EME contest and Sept VHF QSO party can not be scheduled for a common weekend. These contests are compatible. Scheduling them together appears very desirable. Unlike Eur VHF contests, ARRL VHF/UHF contests allow credit for EME contacts and encourage EME OSOs. Virtually all the NA terrestrial activity occurs around .100, (on 2 m around .200 and above .100). There should not be a serious problem with QRM from tropo stations. Having the 2 contests on the same weekend will encourage EME activity by major contest stations. This is already happening. The presence of the EME contest will make EME even more attractive! Additional stations will certainly enhance the EME contest. Some may argue that having both contests on the same weekend will prevent EME operators from participating in the tropo contest, and vice versa. In actuality contest operators can "have their cake and eat it" by participating in both contests at the same time... and they're 2 weekends for the EME contest. Changes in the Moon's orbit will make it undesirable to run these contests on simultaneous weekends every year. The opportunity to add some new excitement to both these contests this coming year, when the orbital mechanics are right, should not be missed. Steve notes the ARRL determines the EME contest dates by a popularity contest - the majority rules. Make sure that you send your vote with your preferred dates to the ARRL.

The are a lot of other things to be discussed, but I have run out of time for this month. CU you off the Moon during the Dec SW. Don't forget to get you info into the Paris EME Conference.

**73, Al-K2UYH** 



## **Leave Contest Info or Comments to Allen Here**

Skeds for DEC 13

Time 432.040 432.070

0030z KB3PD -G4FUF

0100z	KB3PD -S52CW	K7XD -UR5LX
	KB3PD -KD4LT	
	W7QX -HP3XUG	
	N9AB -DL3EAG	
0800z		7M2PDT-KB3PD
0830z	JA9BOH-WD5AGO JA9BOH-K7XD	7M2PDT-WA7BBM
0900z	JA9BOH-K7XD	7M2PDT-K3HZO
0930z	JA9BOH-HP3XUG	7M2PDT-K7XD
1030z	JA9BOH-KL7HFQ	
1100z		7M2PDT-KFOM
1630z		DL3EAG-7M2PDT
1730z		DL4XX -7M2PDT
1800z		DK3BU -7M2PDT
	Skeds for DEC	14
	skeas for DEC	14
Time	432.040	432.070
0200z	WOKJY -CT1DMK	KL7HFQ-DK3WG
0230z	WOKJY -S52CW	W5ZN -W1ZX
0300z	WOKJY -WB2VVV	
0330z	WOKJY -HP3XUG	
	WOKJY -WA8WZG	<del></del>
	WOKJY -W5ZN	
	WOKJY -KL7HFQ	
0900z		7M2PDT-HP3XUG
1100z		7M2PDT-W5ZN
1130z		JA9BOH-W5ZN
	Skeds for DEC	12
Time	2304.050	
030z	LA8LF -OH2AXH	
	Skeds for DEC	13
Time	1296.040	2304.050

Time 1296.040 2304.050

0030z DJ9YW -KD4LT

0130z WA8WZG-OH2AXH
1830z OH2AXH-JA7BMB
1900z OH2AXH-JH3EAO
2000z G3LTF -OH2AXH
2200z G3LTF -LA8LF
2230z G3LTF -ZS6AXT
2300z G3LTF -SM3AKW

Skeds for DEC 14

Time 1296.040 1296.050 1296.075 2304.050

0030z D	J9YW -KD4LT	W3XS -ZS6AXT		K2DH -OH2AXH
0100z		KB0PY0-ZS6AXT		
0130z		K9BCT -ZS6AXT		
0200z			VE6TA -4X6UJ	
0230z			VE6TA -S59DCD	W7GBI -ZS6AXT
0300z		9H1ES -K2UYH	VE6TA -ON5RR	
0330z			VE6TA -WA8WZG	
0400z			VE6TA -KD4LT	
0430z		N6BQ -NP4B	VE6TA -W4OP	
0500z		NP4B -G3LTF	VE6TA -W4RDI	
0530z		NL7F -G3LTF		
2100z		9H1ES -ZS6AXT		
	Skeds for DEC	15		
Time 1	296.040	1296.050		
0100z D	J9YW -KD4LT			
0330z K	D4LT -W4RDI	WOKJY -NU7Z		
0400z				

# **The LATEST on the The Paris EME Conference**

This information was obtained from **Scott**, **KD4LT** 

**Top Page** 

For Comments or corrections: Rein, W6/PA0ZN